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Friday's Feature
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Scale insects

It's time to talk about scales. No, not the bathroom scales but the ones lurking in your landscape. Scale insects are the most serious pests of many ornamental plants.

Scale insects attack a wide variety of plants. They are common on camellia, magnolia, peach, plum, euonymus, privet, ivy, gardenia, holly, sago palms and many other plants grown in Florida.

Scales cause damage by piercing and sucking the juices from their host plant. Some species feed on the underside of leaves causing small yellow spots or a stippled appearance. Others feed on branches making the branch look bumpy. Heavily infested plants look unhealthy and appear stunted. Heavy infestations can cause extensive leaf yellowing, premature leaf drop, branch dieback and sometimes even plant death.

An infestation of tea scale on camellia causes yellowing of the leaves

Scales start out as eggs. The eggs hatch into crawlers that move around the plant until they find a suitable feeding site. Wind may also transport crawlers to new host plants. Once the crawlers locate a place to settle, they begin feeding.

Since the adult scales don't move for the most part, they can look like part of the plant. If you notice an unusual bump or white cottony growth on your shrub or tree, use your thumbnail and scratch the suspected area. If the suspected bump or fuzz comes off, then it may be scale. If it doesn't come off easily, then it may be a normal part of the plant.

Scale control requires a certain amount of vigilance. The tricky part about scale is that the infestation often goes unnoticed until it has reached high populations. Many gardeners often detect a scale problem not by seeing the scale itself, but by noticing a side effect of scale infestation called sooty mold.

Sooty mold is actually a fungus and causes a black, smut-like film on the upper side of leaves. Scale insects secrete honey-dew, a sweet clear liquid, which falls on the leaves below them. This honey-dew furnishes the ideal food for the fungus. Whenever you see sooty mold, plants should be examined closely for sucking pests.

To minimize scale problems, inspect all your plants before you buy them and buy scale-free plants. Scale insects often thrive in warm, humid environments so increasing air flow or decreasing plant density will make conditions less desirable to the pest insect. Also avoid over-fertilization—scale insects often lay more eggs and survive better on plants receiving a lot of nitrogen.

Sometimes, natural insect predators and parasites can suppress scale populations enough so that insecticide use is unnecessary. However, if infestations are heavy and insecticides are warranted, applications must be correctly timed. Most contact insecticides will not penetrate the waxy covering on adult scales, so the young crawler stage is usually the best target.

One method of scouting for scale crawlers is to wrap a piece of black electrician's tape around a branch with the sticky side out. Crawlers will get stuck on the tape as they try to crawl across it. Crawler activity often coincides with the flush of new plant growth in the spring.

But don't wait until spring to treat for scale. Check your landscape plants this winter, determine which are infested and apply horticultural oil. Horticultural oils kill all stages of scales that are present at application and are among the least toxic and most effective product for controlling scale. Horticultural oils coat the insect, blocking its breathing tubes. The insect actually dies from suffocation, not poisoning.

Follow label instructions carefully when using horticultural oils. Plant damage can result if some oils are used during extremely hot or cold periods. The label will provide the safe temperature range for that particular product. Since oils control scales by suffocation, complete spray coverage is required.

Theresa Friday is the Residential Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.